



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Journal of Mycology

VOLUME 13 — MARCH 1907

TABLE OF CONTENTS

ARTHUR — McAlpine's Studies of Australian Rusts.....	41
BESSEY — Spore Forms of <i>Spegazzinia Ornata</i> Sacc.....	43
SACCARDO — New Fungi from New York	45
WILSON AND SEAVER — Ascomycetes and Lower Fungi.....	48
MORGAN — North American Species of Agaricaceae.....	53
RICKER — Third Supplement to New Genera of Fungi	63
STEVENS — List of New York Fungi.....	67
KELLERMAN — Notes from Mycological Literature XXII....	72
KELLERMAN — Index to North American Mycology.....	85
EDITOR'S NOTES.....	88

McALPINE'S STUDIES OF AUSTRALIAN RUSTS.

BY J. C. ARTHUR.

Among the notable recent contributions to uredinology the volume on "The Rusts of Australia, their structure, nature and classification," by D. McAlpine, is worthy of special attention. It was prepared under the auspices of the Department of Agriculture of Victoria, and is an octavo volume of 349 pages of text and 55 full-page plates, partly colored, and the others half-tones from excellent photographs and photomicrographs. The press work and binding are well done, and the volume as a whole is a good piece of book-making.

The body of the work is occupied by a systematic account of 161 species of rusts, all so far known to occur in Australia, distributed under 9 genera. The descriptions of the species are admirably drawn with uniform diagnostic characters for each of the spore-forms. The care exercised to study fully each kind of spore, and especially to search out and describe the spermogonia, is worthy of highest commendation. All collections are reported by place, date and name of collector. Much care has also been taken in citing bibliography and synonymy for each species, and many notes and observations are appended. Prac-

tically every species is illustrated in a most satisfactory manner, to show not only the spore-forms, but in many instances the gross appearance of the fungus and the distortions it produces as well.

Preceding the systematic part twenty chapters are devoted to a discussion of the general subject of rusts in its various aspects, and from the most modern points of view. It is by much the best account now available in the English language.

Following the systematic account is a glossary, bibliography, and three ample indexes. Nothing has been forgotten that might make the work serviceable and complete.

The thoroughness with which the author has accomplished his task, the culmination of many years of observation and study, has insured a valuable work of reference for both local and other botanists. But even more than this, the broad spirit in which the work has been conceived, and the ability shown to discover and interpret the less obvious morphological structures, give added value to the record of facts. The author states that there was "a special object in view in thus recording and describing the rust-fungi of Australia, for this can afterwards be used as a basis in working out the life-history of those particular forms which attack our cultivated and economic plants," which is clearly a sensible method of procedure in attacking the difficult problem of the harmful rusts. It was the author, who a short time ago established the interesting genus *Uromycladium* with its half dozen or more species, founded upon heretofore unrecognized fruiting structures, and his perspicacity brought to light the fascicled arrangement of teliospores in the plum and peach rust, which has put a new interpretation upon the affinities of this and similar rusts. It is this clear insight, and the accuracy and fullness of details, that commend the work to all students of the rusts in every part of the world.